Remarks/Arguments

This communication is considered fully responsive to the first Office action mailed April 24, 2003. Claims 1-74 were examined and stand rejected. Claims 28, 42, and 74 were amended. Claim 51 has been deemed allowable if written in independent form to include all of the limitations of the base claim and any intervening claims. No claims were canceled. No claims were added. Reexamination and reconsideration of claims 1-74 are respectfully requested.

In the specification, the paragraph spanning pg. 11, line 23 to page 12, line 2 has been amended to correct minor editorial problems.

In the first paragraph of the detailed Office action, it is stated that the Office action is responsive to correspondence relating to U.S Patent Application No. 09/843,152. However, the remainder of the Office action appears to address the subject application, U.S. Patent Application No. 09/851,701. As such, the first paragraph of the Office action is taken as an error, and the Applicant responds to the Office action in the subject application.

Claim Rejections – 35 U.S.C. § 112, second paragraph

Claim 70 stands rejected under 35 U.S.C. § 112, second paragraph, as being purportedly indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. The Office action specifically recites the limitation "means for sorting the discontinuity edges" in line 6 of claim 70 as having insufficient antecedent basis. The Applicant traverses this rejection.

Claim 70 does not recite the limitation "means for sorting the discontinuity edges". Furthermore, proper antecedent basis for "the discontinuity edges" in lines 21 and 22 of claim 70 is provided in line 14 of claim 69, from which

claim 70 depends. As such, Applicant requests withdrawal of the rejection of claim 70.

Claim 74 has been amended to provide proper antecedent basis for various limitations by reciting "the sharp edges and the silhouette edges" in lines 20, 21, and 22 of the original application. Claim 74 is believed to be allowable.

Claim Rejections – 35 U.S.C. § 102

Claims 1-4, 6-13, 15-20, 43-47, 53-64, 66, 68-69, and 71-74 stand rejected under 35 U.S.C. 102(e) as being purportedly anticipated by U.S. Patent No. 6,115,050 to Landau et al. ("Landau"). The Applicant respectfully traverses this rejection.

Landau discloses a graphics rendering system that creates an image based on objects constructed of polygonal primitives. "High speed rendering systems typically rely on combinations of simple polygons, referred to as primitives, to build more complex objects." Landau, col. 1, lines 33-35. Silhouette edges in the image are anti-aliased by creating anti-aliasing polygonal primitives which vary in opacity. Landau, Abstract. Such anti-aliasing primitives are shown as triangles 150 in FIG. 14 of Landau. These anti-aliasing primitives are joined to the silhouette edges in the image and create a region in the image where objects appear to blend into the background. Landau, Abstract.

The systems and techniques disclosed and suggested in Landau fail to anticipate the recited invention. The operation of "overdrawing" is clearly described in the application. For example, the "overdrawn edges are effectively superimposed on the rendered image in the frame buffer 208". Page. 11, lines 7-8. Furthermore, various implementations of an overdraw method are described from page 11, line 16 to page 20, line 23.

Claim 1 recites "<u>overdrawing</u> the discontinuity edges as antialiased <u>lines</u>". Landau only discloses creating anti-aliasing <u>polygonal</u> primitives, not lines. The Cambridge International Dictionary of English (Online) defines a "polygon" to be "a flat shape with three or more straight sides" (giving triangles and squares as examples), which clearly does not include lines. <u>http://dictionary.cambridge.org/define.asp?key=61355&dict=CALD</u>. Furthermore, Landau absolutely fails to disclose or suggest that a polygon might be anything other than a flat shape within three or more straight lines, providing a triangle as the only example of a polygonal primitive. Landau, col. 1, lines 37-39 and FIG. 1. Accordingly, Landau fails to disclose or teach the "antialiased lines" feature of claim 1.

In addition, Landau fails to disclose or teach "overdrawing" discontinuity edges as anti-aliased lines. Instead, Landau discloses only joining polygonal primitives to a silhouette edge to anti-alias the silhouette edge. This can be seen in FIG. 14, in which triangles 150 are joined to one edge of the triangle 108. Having defined these triangles 150, Landau discloses only calculating and setting colors for pixels in each of the triangles 150 and does not disclose of suggest <u>overdrawing</u> the rendered discontinuity lines of the polygon as antialiased lines. That is, Landau's silhouette edges are not overdrawn, but are supplemented by newly color-calculated pixels in newly created polygonal primitives located <u>outside and adjacent</u> to the triangle 108.

For the foregoing reasons, claim 1 is believed to be allowable over Landau. Withdrawal of the rejection is respectfully requested.

Claims 2-4 and 6-11 depend from claim 1, which is believed to be allowable. Therefore, claims 2-4 and 6-11 are believed to be allowable for at least

the same reasons as claim 1. Withdrawal of the rejection of claims 2-4 and 6-11 is respectfully requested.

Claim 12 also recites "overdrawing the discontinuity edges as antialiased lines", just as claim 1 does, and claims 13 and 15-20 depend from claim 12. Therefore, claims 12-13 and 15-20 are believed to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 12-13 and 15-20 is respectfully requested.

Claim 43 recites "overdrawing the silhouette edges as antialiased lines", in a manner similar to claim 1, and claims 44-47 depend from claim 43. Therefore, claims 43-47 are believed to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 43-47 is respectfully requested.

Claim 53 recites "overdrawing discontinuity edges of the polygonal mesh as antialiased lines", in a manner similar to claim 1, and claims 54-62 depend from claim 53. Therefore, claims 53-62 are believed to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 53-62 is respectfully requested.

Claim 63 recites "an overdrawer configured to overdraw the discontinuity edges as antialiased lines", in a manner similar to claim 1, and claims 64, 66, and 68 depend from claim 63. Therefore, claims 63-64, 66, and 68 are believed to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 63-64, 66, and 68 is respectfully requested.

Claim 69 recites a graphical computing device to "overdraw the discontinuity edges as antialiased lines", in a manner similar to claim 1, and claims 71-73 depend from claim 69. Therefore, claims 69 and 71-73 are believed

to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 69 and 71-73 is respectfully requested.

Claim 74, as amended, recites "means for <u>overdrawing</u> the sharp edges and the silhouette edges as antialiased lines", in a manner similar to claim 1. Therefore, claim 74 are believed to be allowable for at least the same reasons as claim 1. Withdrawal of the rejection of claims 74 is respectfully requested.

Claim Rejections – 35 U.S.C. § 103

Claims 5, 14, 21-42, 48-50, 52, 65, 67, and 70 stand rejected under 35 U.S.C. § 103(a) as being purportedly unpatentable over Landau. Claims 28 and 42 have been amended to correct typographical errors.

The Applicant asserts that Landau is disqualified as Section 103 prior art against the subject invention because the subject matter of Landau and the invention recited in claims 5, 14, 21-42, 48-50, 52, 65, 67, and 70 "were" commonly owned at the time the invention was made. Therefore, the Applicant traverses the rejection.

The entire rights in the subject matter of the Landau patent were originally assigned to WebTV Networks, Inc. Additionally, WebTV Networks, Inc. was acquired as a wholly owned subsidiary of the Microsoft Corporation in July of 1997. The subject application was filed on May 8, 2001, after the Microsoft Corporation acquired WebTV Networks, Inc. Therefore, the Applicant represents the following:

STATEMENT OF COMMON OWNERSHIP

The subject application and the subject matter of the Landau patent were, at the time the invention of the subject application was made, owned by Microsoft Corporation.

Accordingly, Landau is disqualified as prior art against the claimed invention pursuant to 35 U.S.C. §103(c) via 35 U.S.C. §102(e). Therefore, claims 5, 14, 21-42, 48-50, 52, 65, 67, and 70 are therefore allowable and withdrawal of the rejection is respectfully requested.

Allowable Subject Matter

It has been indicated that claim 51 would be allowable if written in independent form to include all of the limitations of the base claim and any intervening claims. However, claim 51 depends from claim 48 is believe to be allowable in light of the disqualification of the Landau reference as Section 103 prior art. Therefore, claim 51 is allowable, and withdrawal of the rejection is respectfully requested.
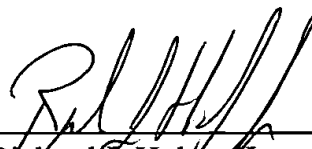
Conclusion

The Applicant respectfully requests that a timely Notice of Allowance be issued in this matter.

Respectfully Submitted,

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By: _____

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